REMARKS

In the Office Action mailed June 21, 2006, all pending claims 1-31 (claims 1, 6, 17 and 25 are independent) were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art in view of U.S. Patent No. 6,252,781 (Rinne). Applicant traverses the rejections of the claims and respectfully requests reconsideration in view of the following remarks.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the cited references must teach or suggest all the claim limitations. (MPEP § 2142). Applicant submits that neither Applicant's admitted prior art nor Rinne, alone or in combination, teach or suggest a DC-DC converter in as much detail as recited in any of independent claims 1, 6, 17, or 25. The Examiner asserted that Applicant's admitted prior art discloses all elements of the independent claims except for the second switch coupled in parallel to the first switch. The Examiner then asserted that Rinne teaches that it is well known to provide a second switch in parallel to a first switch that is connected to a primary winding. Applicant respectfully disagrees.

Applicant submits that Rinne does not teach a second switch in as much detail as recited in the present independent claims for the reasons set forth below. Furthermore, Applicant does not acquiesce that Applicant admitted prior art discloses all elements of the present claims except for the second switch; however, because Rinne fails to make up for the shortcomings of Applicant admitted prior art (and in particular, does not teach a second switch as recited in the present claims), the cited combination fails to teach all elements of the recited claims for at least the reasons presented below.

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, IL 60606
(312)913-0001

I. Claim 1

With regard to claim 1, Applicant submits that Rinne does not teach a DC-DC converter including "a second switch coupled to conduct current in parallel path with the first switch, the second switch being a normally open switch having a lower saturation resistance than the first switch, wherein the second switch operates once the DC-DC converter has begun oscillating," as in claim 1.

Rinne teaches a circuit including a main power switch for connecting an input DC voltage source to a primary winding of a transformer, and a reset switch and reset voltage source to provide a reset voltage across the primary winding during the time period in which the main power switch is off (Col. 3, lines 14-24). Rinne teaches that a control circuit senses the voltage output and in response thereto provides a control signal for controlling the two switches. The control circuit is coupled to a delay circuit for providing a delay between the time that the main power switch opens and the reset switch closes, and between the time the reset switch opens and the main power switch closes. Because of this delay, there is no overlap time in which both of the switches are closed. The delay time is longer than the time required to prevent the main and reset power switches from conducting simultaneously (Col. 3, lines 40-54).

Applicant submits that Rinne does not teach "wherein the second switch operates once the DC-DC converter has begun oscillating," as in claim 1. Rinne teaches that the reset switch cannot operate until the main power switch is off. The reset switch only operates to reset the voltage within the circuit, and does not operate simultaneously with the main power switch. In contrast, the claim 1 recites that the first and second switches do operate together once the DC-DC converter has begun oscillating.

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, IL 60606
(312)913-0001

II. Claims 6 and 25

With regard to claims 6 and 25, Applicant submits that Rinne does not teach "a second switch having a control terminal coupled so as to control the generation of a stepped-up voltage based, at least in part, on an output voltage of the DC-DC converter," as in claim 6 and similarly in claim 25. Rinne teaches that the second switch, or reset switch operates to reset a voltage across the primary winding during the time period in which the main power switch is off (Col. 3, lines 17-20). Within Rinne, the reset switch does not operate to control generation of a "stepped-up voltage," as in the present claims, since the reset switch only operates when the main power switch is off and voltage has dissipated so that it is safe to turn on the reset switch (Col. 4, lines 35-40). Thus, no "stepped-up voltage" is generated.

In addition, Rinne naturally does not teach a second switch controlling generation of a stepped-up voltage since Rinne is directed to a rectifier arranged for converting AC to DC. In contrast, the present claims are directed to a DC-DC converter employed to step-up or boost the voltage produced by a source.

III. Claim 17

With regard to claim 17, Applicant submits that Rinne does not teach "a second switch having a control terminal coupled with the secondary winding, the second switch being further coupled with the primary winding and the ground terminal, the second switch comprising a normally open switch that is coupled so as to conduct current in a parallel path with the first switch," as in claim 17.

As seen in Figures 3 and 5 in Rinne, the second switch, or reset switch 105, is only coupled to the primary winding of the transformer. The reset switch 105 (and main power

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, IL 60606
(312)913-0001

switch 102) have their control terminals connected to a control circuit 116, which is independent from the secondary winding of the transformer 104.

CONCLUSION

Applicant submits that Rinne does not make up for the short-comings of Applicant admitted prior art. Applicant admitted prior art does not teach the recited second switch, and Rinne fails to teach or suggest the second switch in as much detail as contained in the present claims. Notably, Rinne fails to teach or suggest the recited configuration of the second switch as contained in any of independent claims 1, 6, 17 and 25. Since the combination of Applicant admitted prior art and Rinne does not teach or suggest every element of any of independent claims 1, 6, 17 and 25, the cited combination does not render claims 1-31 obvious

Applicant respectively submits that, in view of the remarks above, all of the pending claims are in condition for allowance. Applicant therefore respectfully requests such action. The Examiner is invited to call the undersigned at (312) 913-3331 with any questions or comments.

Respectfully submitted,

McDonnell Boehnen Hulbert & Berghoff LLP

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By: _____

Joseph A. Herndon
Reg. No. 50,469

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, IL 60606
(312)913-0001